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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,767	10/14/2003	James R. Mujwid	6683.69USU1	6331
43541	7590	10/04/2005	EXAMINER	
FAEGRE & BENSON ATTN: PATENT DOCKETING 2200 WELLS FARGO CENTER 90 SOUTH 7TH STREET MINNEAPOLIS, MN 55402-3901			REIMERS, ANNETTE R	
			ART UNIT	PAPER NUMBER
			3732	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

THL

<b>Office Action Summary</b>	Application No. 10/685,767	Applicant(s) MUJWID ET AL.	
	Examiner Annette R. Reimers	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07/01/05.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 7-12 and 16-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Suddaby (U.S. Patent Number 6,332,895).

Suddaby discloses an expandable intervertebral implant comprising an external member, 12, including an external base wall and first and second external walls extending from the external base wall (see figure 1) and an internal member, 10 including an internal base wall and first and second internal walls extending from the internal base wall (see figure 1). The expandable intervertebral implant further includes a locking arrangement configured to lock the implant in an expanded configuration against a compressive force applied to the internal and external members along a direction opposite the direction of expansion (see column 3, lines 40-49, column 4, lines

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29-34, and figure 3), wherein the locking arrangement including a first configuration of teeth formed on each of the first and second external walls, the first configuration of teeth being raked in an upward direction (see figure 3) and a second configuration of teeth formed on each of the first and second internal wall, the second configuration of teeth being raked in a downward direction (see figure 3). The engagement surfaces of the interlocking teeth structures are arranged in a non-perpendicular orientation relative to the first wall of the external and internal members (see figures 1 and 3). Furthermore, the external member includes a flexible end portion, 30, that is distal to the other member (see figure 1).

The flexible end portion comprises an arcuate portion and the external member comprises a shoulder portion having a surface generally perpendicular to the direction of expansion and recessed relative to at least part of the arcuate portion in the direction of expansion (see figures 1 and 3). In addition, at least a portion of the arcuate portion and at least a portion of the shoulder portion define an arcuate slit therebetween (see figure 1). The external member, which comprises the arcuate portion further comprises an additional shoulder portion having a surface generally perpendicular to the direction of expansion and recessed relative to at least part of the arcuate portion in the direction of expansion, the two shoulder portions disposed on opposite sides of the arcuate portion when viewed in the direction of expansion (see figures 1 and 3).

The external member is capable of being of a rigid construction and the internal member is capable of being of a flexible construction (see column 4 lines 59-64). The first wall of the external member has an external wall thickness greater than the internal

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wall thickness of the internal member (see figure 1). In addition, the internal member includes a slot, 26, adjacent to an end of the first wall (see figure 1).

Claims 2 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Suddaby (U.S. Patent Number 6,159,244).

Suddaby discloses an expandable intervertebral implant comprising an external member, 10, and an internal member, 12, including at least a first wall (see figure 1) and an interlocking teeth structure formed on the first walls of the external and internal members (see figure 1). The interlocking teeth structure formed on the external member having an engagement surface that engages an engagement surface on the internal member to lock the implant in an expanded configuration against a compressive force applied to the internal and external members along a direction opposite the direction of expansion (see column 3, lines 3-8, and column 4, lines 20-26) and engagement surfaces of the interlocking teeth structures are arranged in a non-perpendicular orientation relative to the first wall of the external and internal members (see figures 2-4). In addition, the first walls of the external and internal members have an inside and outside wall surface and the interlocking teeth structure is formed only on the inside wall surface of the external member and only on the outside wall surface of the internal member (see figure 1). Furthermore, the external member includes a flexible end portion, 34, distal to the other member (see figure 1).

Claims 1-2, 6-12 and 16-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Gerbec et al. (U.S. Patent Number 6,648,917).

Gerbec et al. disclose an expandable intervertebral implant comprising an external member, 14, including an external base wall and first and second external walls extending from the external base wall (see figure 2) and an internal member, 12 including an internal base wall and first and second internal walls extending from the internal base wall (see figure 2). In addition, the first walls of the external and internal members have an inside and outside wall surface and the interlocking teeth structure is formed only on the inside wall surface of the external member and only on the outside wall surface of the internal member (see figure 2).

The expandable intervertebral implant further includes a locking arrangement configured to lock the implant in an expanded configuration against a compressive force applied to the internal and external members along a direction opposite the direction of expansion (see column 7, lines 26-49), wherein the locking arrangement including a first configuration of teeth formed on each of the first and second external walls, the first configuration of teeth being raked in an upward direction (see figure 2) and a second configuration of teeth formed on each of the first and second internal wall, the second configuration of teeth being raked in a downward direction (see figure 2). The engagement surfaces of the interlocking teeth structures are arranged in a non-perpendicular orientation relative to the first wall of the external and internal members (see figure 2).

The external member is capable of being of a rigid construction and the internal member is capable of being of a flexible construction (see column 9 lines 28-35). The first wall of the external member has an external wall thickness greater than the internal

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wall thickness of the internal member (see figure 2). In addition, the internal member includes a slot, e.g. 40, adjacent to an end of the first wall (see figure 2). Furthermore, the external member includes a flexible end portion, 86-89, distal to the other member (see figure 2).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suddaby (U.S. Patent Number 6,332,895).

Suddaby discloses the claimed invention except for the engagement surfaces of the interlocking teeth structure formed on the external member and the internal member raked upwardly and downwardly about 4 degrees, respectively, the upwardly and downwardly raked configuration of teeth having a rake angle of between 1-8 degrees relative to the first and second walls of the external and internal members, and where the engagement surfaces of the interlocking teeth structure formed on the internal and external members is angled approximately 94 degrees relative to the respective first wall, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Suddaby with the engagement surfaces of the interlocking teeth structure formed on the external member and the internal

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member raked upwardly and downwardly about 4 degrees, respectively, the upwardly and downwardly raked configuration of teeth having a rake angle of between 1-8 degrees relative to the first and second walls of the external and internal members, and where the engagement surfaces of the interlocking teeth structure formed on the internal and external members is angled approximately 94 degrees relative to the respective first wall, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

### ***Response to Arguments***

Applicant's arguments filed July 1, 2005 have been fully considered but they are not persuasive. In response to applicant's argument that the Suddaby (895), Gerbec et al., and Suddaby (244) references do not teach an expanded configuration "against a compressive force applied to the internal and external members along a direction opposite the direction of expansion", it is noted that the law of anticipation does not require that the reference "teach" what the subject patent teaches, but rather it is only necessary that the claims under attack "read on" something in the reference. Kalman v. Kimberly Clark Corp., 218 USPQ 781 (CCPA 1983). Furthermore, the manner in which a device is intended to be employed does not differentiate the claimed apparatus from prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

Moreover, examiner respectfully disagrees with applicant that both Suddaby references and the Gerbec et al. reference do not teach an expanded configuration



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"against a compressive force applied to the internal and external members along a direction opposite the direction of expansion". Suddaby (895) teaches an expanded configuration "against a compressive force applied to the internal and external members along a direction opposite the direction of expansion" (see column 3, lines 40-49, column 4, lines 29-34, and figure 3). Furthermore, Suddaby (244) teaches an expanded configuration "against a compressive force applied to the internal and external members along a direction opposite the direction of expansion" (see column 3, lines 3-8, and column 4, lines 20-26). In addition, Gerbec et al. teaches an expanded configuration "against a compressive force applied to the internal and external members along a direction opposite the direction of expansion" (see column 7, lines 26-49).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Annette R. Reimers whose telephone number is (571) 272-7135. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on (571) 272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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EDUARDO C. ROBERT  
PRIMARY EXAMINER